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United States Department of Agriculture,
FOREST SERVICE.

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SILVICAL LEAFLET 20.

WEeping SPRUCE.

Picea breweriana Wats.

Weeping spruce is a tree of very limited occurrence, and is chiefly of botanical and local interest.

RANGE AND OCCURRENCE.

It is found in southwestern Oregon and northwestern California, at altitudes of from 4,000 to 8,000 feet. There are no large stands, either pure or mixed, but it grows only in small, isolated areas. It prefers cool situations and is found on steep, sheltered northern slopes and along the sides of ravines at the heads of mountain streams.

CLIMATE.

The climate to which weeping spruce is exposed is cool and damp. The seasonal range of temperature is from a little below zero to 100° Fahrenheit, and the precipitation varies from 20 to 60 inches, much of it in the form of snow, which frequently remains on the ground several months and is occasionally as deep as 20 feet.

ASSOCIATED SPECIES.

Weeping spruce has never been found in pure stands, but is associated with black hemlock, and with sugar pine, white fir, incense cedar, western white pine, and Douglas fir in the upper limits of their altitudinal ranges.

HABIT.

Weeping spruce is a tree of unique appearance. It is of medium size, and is from 60 to 75 feet in height on an average, occasionally as much as 100 feet, with a diameter which varies from 18 to 30 inches at maturity. The crown is long and conical, and usually persists to within a few feet of the ground, except in dense stands. The bole is swollen at the base and tapers rapidly. The upper branches are nearly horizontal, while in the lower part of the crown they are drooping. Long,

pendulous branchlets give the tree the characteristic appearance which its name implies. The needles are more blunt than those of most American spruces, and are yellow-green in color. The bark is scaly, red-brown, and of medium thickness. The cones are large for spruce.

SOIL AND MOISTURE.

Although it will grow on dry, rocky soil, this tree does best on the deep, moist ground along streams, where it is more frequently found.

TOLERANCE.

Its dense foliage and the fact that it is found in close stands indicate that, like most other spruces, it can endure considerable shade.

REPRODUCTION.

Little is known of its reproductive capacity beyond the fact that it has seed years of fair abundance at intervals of from two to three years.

